

06-1447. For the purpose of charging or crediting said deposit account, duplicates of pages 1 and 2 and the signature page of this response are submitted herewith.

In response to the restriction requirement, Applicant provisionally elects the claims of Group I (claims 1-18) for examination with traverse. Applicant respectfully requests reconsideration of the restriction requirement for the reasons discussed below.

### **REMARKS**

In the Office Action, a restriction requirement was imposed between the claims of Group I (claims 1-18) drawn to a method for use in detecting the presence of a selected microscopic pathogen in a sample; the claims of Group II (claims 19-33) drawn to a detection apparatus for use in the detection of the presence of a selected pathogen in a sample; the claims of Group III (claims 34-45) drawn to a method for use in detecting the presence of a selected microscopic pathogen in a sample; and the claims of Group IV (claims 46-63) drawn to a kit for use in the detection of the presence of a selected pathogen in a sample. Applicant respectfully traverses the restriction requirement imposed on the application by the Examiner.

According to § 803 of the MPEP, two criteria must be met for any restriction requirement to be proper. First, the inventions must be independent or distinct as claimed. Second, there must be a serious burden on the Examiner. As stated in § 803 of the MPEP, "If the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to independent or distinct inventions."

Applicant understands and appreciates the Examiner's time constraints in examining applications. Because the independent claims contain similar structural features, Applicant respectfully contends that the search and examination of the claims of Groups II, III, and IV, in addition to the claims of elected Group I, should be possible without imposing a serious burden upon the Examiner. For example, independent method claim 1 includes the feature of providing "a substrate having a detection region thereon comprising a surface comprising microstructures including depressions of width and depth sized to align a liquid crystal material in contact therewith and wherein the depressions are of a size sufficient to be

occupied by the selected pathogen.” Each of the other independent claims includes a similar feature. For example, the detection apparatus of independent claim 19 includes “a substrate with a detection region on a surface thereof, the detection region having microstructures comprising grooves formed therein that will align liquid crystal material in contact therewith, the width and depth of the grooves being in the range of 10  $\mu\text{m}$  or less.” Similarly, the method of claim 34 includes the feature of providing “a substrate having a detection region thereon comprising a surface comprising microstructures including depressions of width and depth sized to align a liquid crystal material in contact therewith and wherein the depressions are of a size sufficient to be occupied by the selected pathogen.” Finally, independent kit claim 46 includes “a substrate with a detection region on a surface thereof, the detection region having microstructures comprising grooves formed therein that will align liquid crystal material in contact therewith, the width and depth of the grooves being in the range of 10  $\mu\text{m}$  or less.”

As another example, independent claim 1 includes treating the surface of the detection region to provide “a layer thereon that blocks non-specific binding of pathogens to the surface and that includes a binding agent that specifically binds the selected pathogen to be detected.” The detection apparatus of independent claim 19, the method of claim 34, and the kit of claim 46 contain similar features. For example, the apparatus of claim 19 includes “a blocking layer on the surface of the detection region...the blocking layer blocking nonspecific adsorption of pathogens to the surface; and a binding agent on the surface of the detection region, the binding agent specifically binding the selected pathogen.” In the method of claim 34, the surface of the detection region is “treated to block non-specific binding of pathogens to the surface” and has “a binding agent thereon that specifically binds the selected pathogen to be detected.” Finally, kit claim 46 includes a substrate with a detection region with “a blocking layer on the surface of the detection region of the substrate...the blocking layer blocking nonspecific adsorption of pathogens to the surface and a binding agent attached on the surface of the detection region of the substrate, the binding agent specifically binding the selected pathogen.”

Therefore, each of the features of independent claim 1 is present in the other independent claims. For this reason, Applicant respectfully contends that any search directed

to the methods set forth in the claims of Group I will substantially overlap with a search directed to the methods, devices, and kits of Groups II, III, and IV, if not be co-extensive therewith. Applicant, therefore, respectfully contends that the search and examination of the entire examination may be made without seriously burdening the Examiner. Thus, it is submitted that all the claims are directed to a common invention that is appropriately examined in the same application, and Applicant respectfully requests that the Examiner reconsider and withdraw the restriction requirement between Groups I, II, III and IV.

### CONCLUSION

For the foregoing reasons, it is respectfully submitted that the claims of Groups I, II, III, and IV may be examined together without placing a serious burden on the Examiner, and that appropriate reasons for insisting upon restriction of the claims have not been properly established. Thus, it is respectfully requested that the restriction requirement between Groups I, II, III, and IV be reconsidered and withdrawn and that claims 1-63 of the application be examined together.

Respectfully submitted,

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Date



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